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Applicant:	David Yin-Shur Ma	Art Unit:	2143
Serial No.	09/772,451	Examiner:	Choudhury, Azizul Q
Filed:	01/29/2001		
Title:	Method and Apparatus for Facilitating Communication Between a Wireless Device and Disparate Devices or Systems		

CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

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Kim Thu Van-Dinh

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AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Sir:

In response to the office action mailed on 08/16/2004, in the above-identified application, please amend the application as follows:

Amendments to the claims:

1. (Amended) For use in a communication interface for communication between a wireless device and the communication interface, the communication interface being configured to communicate with other devices communicating with a network and configured to facilitate data communication between the wireless device and other devices connected to the network, where the network is configured under a network protocol that requires all network devices receive and send data packets related to administrative procedures within the network, such as device naming protocols, a computer readable medium having stored thereon a plurality of sequences of instructions, said sequences of instructions including instructions that, when executed by a processor, cause said processor to perform the steps of :

receiving an initialization packet from a wireless device indicating whether the signal carrying the message is configured under a first protocol;

establishing a communication link with the wireless device;

establishing another communication link between the wireless device and the network; and

managing the transmission to the wireless device of authorized communication signals sent from the computer system by:

receiving and analyzing signals when received;

determining whether the signals received from the network are directed to the wireless device;

if they are directed to the wireless device, screening the messages to determine whether they are configured under a first protocol to prevent unauthorized signal transmissions to the wireless device; and

if the messages are directed to the wireless device and are also configured under the first protocol, then transmitting authorized signals configured under the first protocol to the wireless device according to the first communication protocol.

2. (Amended) A method according to Claim 1, wherein the managing of the transmission includes:

examining data packets transferred between a wireless device and a network device;

determining which signals are authorized for transmission to the wireless device according to a first communication protocol; [and]

if the examination of a data packet indicates that the wireless device has authorized the transmission of authorized communications to the wireless device, transmitting a data packet to the wireless device;

if the examination of a data packet indicates that the wireless device has not authorized the transmission of authorized communications to the wireless device, not transmitting a data packet to the wireless device; and

if the examination of a data packet indicates that the transmissions directed to the wireless device are related to administrative functions of the transmitting network that do not relate to the transmission of data to the wireless device, not transmitting a data packet to the wireless device.

3. (Amended) A method according to Claim 1, wherein the managing of the transmission includes:

examining a data packet transferred between a wireless device and a network device;

determining whether the data packet is authorized for transmission to the wireless device according to a first communication protocol, wherein properties of the first protocol include refraining from transmitting data packets that pertain to administrative operations of the network that are not necessary for the transmission of data packets to the wireless device; and

if the examination of a data packet indicates that the wireless device has authorized the transmission of particular communications to the wireless device, transmitting a data packet to the wireless device;

if the examination of a data packet indicates that the wireless device has not authorized the transmission of particular communications to the wireless device, not transmitting a data packet to the wireless device.

4. (Amended) A method according to Claim 1, wherein the managing of the transmission includes:

examining a data packet transferred between a wireless device and a network device;

determining whether the wireless device is configured to communicate under a first protocol, wherein the first protocol dictates whether a data packet is authorized for transmission to the wireless device, and wherein the first protocol screens administrative data packets to prevent transmissions to the wireless device that are not necessary to the transmission of data packets to wireless devices; and

if the examination of a data packet indicates that the wireless device is configured under the first protocol, transmitting a data packet to the wireless device;

if the examination of a data packet indicates that the wireless device is not configured under the first protocol, not transmitting a data packet to the wireless device.

5. (Amended) For use in a communication interface for communication between a wireless device and another device via the communication interface, the communication interface being configured to communicate with other devices communicating with a network and configured to facilitate data communication between the wireless device and other devices connected to the network and to filter out certain communications from reaching the wireless device, where the network is configured under a network protocol that requires all network devices receive and send data packets related to administrative procedures within the network, such as device naming protocols, a computer readable medium having stored thereon a plurality of sequences of instructions, said sequences of instructions including instructions that, when executed by a processor, cause said processor to perform the steps of :

receiving a data packet transmission between a network affiliated device and a wireless device;

analyzing the data packet when received;

determining whether the data packet contents indicate whether the wireless device is configured to accept session data packets related to transmitting data packets other than those related to administrative operations of the network from a network device;

if the wireless device is configured to accept session data packets from a network device, transmitting session data packets to the wireless device. (Amended)

6. (Amended) A method according to Claim 5, wherein the communication interface determines whether a wireless device is configured to receive Windows™ network communications protocol by:

examining data packets transmitted from the wireless device to the network device;

if the data packet does not include an indicia for administrative processes of the Widows ™ network that may be used to identify the wireless device as a Windows™ network compliant device by performing Windows ™ renaming operations, filtering Windows ™ network protocol data packets from transmission to the wireless device; and

if the data packet does not include[s] any indicia that may be used to identify the wireless device as a Windows™ network compliant device, allowing Windows™ network protocol data packets to be transmitted to the wireless device.

7. (Amended) For use in a communication interface for communication between a personal data assistant (PDA) and the communication interface, the communication interface being configured to communicate with other devices communicating with the internet and configured to facilitate data communication between the PDA and other devices, where the network is configured under a network protocol that requires all network devices receive and send data packets related to administrative procedures within the Internet network, such as device naming protocols, a computer readable medium having stored thereon a plurality of sequences of instructions, said sequences of instructions including instructions that, when executed by a processor, cause said processor to perform the steps of :

receiving an initiation packet from a computer system that is intended to be broadcast to devices outside the network;

receiving communications signals from devices outside the network that identify outside devices;

determining which outside devices are configured as network devices by;

(1) transmitting network related administrative data packets to the outside devices; and

(2) analyzing the communication signals sent by such devices that are capable of communication with devices associated with the network;

sending the broadcast initiation packet to outside devices that are identified as network devices; and

filtering the broadcast initiation packet from outside devices that are identified as PDA devices to prevent the broadcast initiation packet from being transmitted to the PDA.

8. (Amended) A communication interface for managing communication between a wireless device and a network device comprising:

a receiver configured to receive data packets received by the communication device, the receiver including a signal receiver configured to receive a signal used for transmitting data over a medium and converter configured to convert the data signal into a form that can be stored;

a transmitter configured to transmit data packets over a medium;

a storage device configured to store data, the storage device including a storage mechanism for storing data packets received by the receiver;

an analyzer configured to examine data packets transmitted between a wireless device and a network device, where the network is configured under a network protocol that requires all network devices receive and send data packets related to administrative device naming procedures within the network; and

a filter mechanism configured manage data transmissions between the wireless device and the network device by filtering out data packets related to administrative device naming procedures within the network.

9. (Amended) A communication interface according to claim 8, wherein the analyzer includes an identifier that is configured to identify a data packet sent by a particular wireless device that is configured according to a first protocol, and wherein the filter mechanism is configured to subsequently relay data packets that are sent by a network device that are configured according to the first protocol to the particular wireless device in response to the analyzer receiving a data packet sent by the particular wireless device to prevent data packets related to network renaming procedures from being sent to the wireless device.

10. (Amended) A communication interface according to claim 8, wherein the analyzer is configured to identify a data packet sent by a wireless device that is configured

according to a first protocol that refrains from transmitting packets related to network naming protocols used by the network to name devices authorized to communicate with other devices connected to the network, and wherein the filter mechanism is configured to subsequently relay data packets to the wireless device that are sent by a network device and that are configured according to the first protocol by preventing unnecessary data packet transmissions to the wireless device.

11. (Amended) A communication interface according to claim 8, wherein the analyzer includes an identifier that is configured to identify a data packet transmitted by a wireless device that indicates that the transmitting wireless device is configured according to a first protocol that permits transmission to devices that are not subject to naming protocols within the network by transmitting data via a network interface, and wherein the filter mechanism is configured to subsequently relay data packets that are sent by a network device that are configured according to the first protocol only to wireless devices that have transmitted such a packet having such indicia.

12. (Amended) A communication interface for affecting communication between a wireless device and a network device comprising:

receiver means for receiving data packets;

converter means for converting the data signal into a form that can be stored;

transmission means for transmitting data packets over a medium;

storage means for storing data packets;

examining means for examining data packets transmitted between a wireless device and a network device to determine whether data packets are directed to transmitting administrative renaming queries to devices connected to the network; and

filter means for filtering our data transmissions between the wireless device and the network device upon a condition, where administrative renaming procedures are prevented from being transmitted to a wireless device.

13. (Amended) A communication interface according to claim 12, wherein the examining means is configured to identify a data packet configured according to a first protocol

that is transmitted by the wireless device, and wherein the filter means is configured to subsequently relay data packets that are sent by a network device and that are configured according to the first protocol to the particular wireless device in response to the examining means transmitting a data packet sent by the wireless device, wherein the examining means prevents data packets related to network renaming procedures to the wireless device.

14. (Amended) A communication interface according to claim 12, wherein the examining means is configured to identify a data packet sent by a wireless device that is configured according to a first protocol, and wherein the filter means is configured to subsequently relay data packets to the wireless device that are sent by a network device and that are configured according to the first protocol, wherein the examining means prevents data packets related to network renaming procedures to the wireless device according to the first protocol.

15. (Amended) A communication interface according to claim 12, wherein the examining means is configured to identify a data packet transmitted by a wireless device that indicates that the transmitting wireless device is configured according to a first protocol, and wherein the filter means is configured to subsequently relay data packets that are sent by a network device that are configured according to the first protocol only to wireless devices that have transmitted such a packet having such indicia, wherein the indicia alerts the examining means to prevent data packets related to network renaming procedures to the wireless device.

16. (Amended) A system for communicating between a wireless device and a network device comprising:

an electronic wireless device configured to communicate with other electronic devices according to a communication protocol;

an electronic network device configured to communicate with other electronic devices via a computer network;

a communication interface having a receiver configured to receive data packets, the receiver including a signal receiver configured to receive a signal over a transmission medium and a converter configured to convert the data signal into a form that can be stored; a transmitter

configured to transmit data packets over a medium; a storage device configured to store data, the storage device including a storage mechanism for storing data packets received by the receiver; an analyzer configured to examine data packets transmitted between the wireless device and the network device to determine whether the data packets relate to unnecessary administrative procedures related to the operation of the network; and a filter mechanism configured manage data transmissions between the wireless device and the network device and to prevent data packets related to network renaming procedures from being sent to the wireless device.

17. (Amended) A communication interface according to claim 16, wherein the analyzer includes an identifier that is configured to identify a data packet sent by a particular wireless device that is configured according to a first protocol, and wherein the filter mechanism is configured to subsequently relay data packets that are sent by a network device that are configured according to the first protocol that causes data packets related to network renaming procedures to be prevented from being sent to the wireless device to the particular wireless device in response to the analyzer receiving a data packet sent by the particular wireless device.

18. (Amended) A communication interface according to claim 16, wherein the analyzer is configured to identify a data packet sent by a wireless device that is configured according to a first protocol, and wherein the filter mechanism is configured to subsequently relay data packets to the wireless device that are sent by a network device and that are configured according to the first protocol that prevents data packets related to network renaming procedures from being sent to the wireless device.

19. (Amended) A communication interface according to claim 16, wherein the analyzer includes an identifier that is configured to identify a data packet transmitted by a wireless device that indicates that the transmitting wireless device is configured according to a first protocol, and wherein the filter mechanism is configured to subsequently relay data packets that are sent by a network device that are configured according to the first protocol only to wireless devices that have transmitted such a packet having such indicia to prevent data packets related to network renaming procedures from being sent to the wireless device.

Remarks:

This Amendment represents a sincere effort to respond to all of the issues raised in the Office Action of August 16, 2004, and to place the claims in condition for allowance or to reduce the issues for appeal and place the claims in better form for appeal.

Status of the Claims

In the application, Claims 1-19 are the only pending claims. All 19 of these claims have been amended, and the total number of pending claims has been reduced from thirty one claims to six claims, a reduction of twenty five claims. Applicant intends this as a sincere effort to advance the prosecution of this application.

In the Office Action of August 16, 2004, all of the claims were rejected under 35 USC 102 over U.S. Patent No. 6,557,029B2, of Szymansky et al. ("Szymansky").

Claim 6 was objected to for the use of the trademark "Windows" without the correct designation. Applicant has amended Claim 6 to correct this.

Claims 1-19, have been amended.

Applicants' Claimed Invention

According to the amended claims, the invention is directed to a device for use in a communication interface for communication between a wireless device and the communication interface, the communication interface being configured to communicate with other devices communicating with a network and configured to facilitate data communication between the wireless device and other devices connected to the network. The network is configured under a network protocol that requires all network devices receive and send data packets related to administrative procedures within the network, such as device naming protocols. The invention includes receiving an initialization packet from a wireless device indicating whether the signal carrying the message is configured under a first protocol, establishing a communication link with the wireless device and establishing another communication link between the wireless device and the network. The system further manages the transmission to the wireless device of authorized communication signals sent from the computer system by receiving and analyzing signals when

received. Then, the system determines whether the signals received from the network are directed to the wireless device. If they are directed to the wireless device, the system screens the messages to determine whether they are configured under a first protocol to prevent unauthorized signal transmissions to the wireless device. If the messages are directed to the wireless device and are also configured under the first protocol, then the system transmits authorized signals configured under the first protocol to the wireless device according to the first communication protocol. Again, the invention is directed to networks that are configured under a network protocol that requires all network devices receive and send data packets related to administrative procedures within the network, such as device naming protocols. The invention prevents such administrative communications from being transmitted to the wireless device, relieving the wireless device from the burdens of administrative data packets constantly being sent to the wireless device and requiring response, as well as the burdens of storing and processing such data packets.

Response to Claim Rejections

Generally, all 19 claims were found to have steps or functions that were "inherent" in networks or other conventional technologies. Unless the claimed elements are fully disclosed in the reference, it does not anticipate the invention. Furthermore, it is respectfully submitted that the details of the communication functions of the invention are not disclosed, suggested or otherwise "inherent" in Szymansky.

Generally, Szymansky discloses a substantially high level design for a system for distributing messages electronically. The system is described as a method for transmitting graphical images of messages that are scribbled on some type of handheld computer that is configured to support graphically generated notes. The notes are then transmitted among other users in the system by storing the messages in a central location. Aside from general password protection, there is no further communication protocol described, nor is there any specific network communication protocol described. In fact, Szymansky assumes that the communication protocols are NOT novel, but rather comprise conventional methods and technology. No specific protocols are discussed in the patent. In fact, a system configured according to Szymansky would benefit from Applicant's invention as claimed.

Moreover, Szymansky is directed to a network for exchanging graphical information with a network, but there is no mention of administrative operations of the network. The invention as now claimed in the above amendments, in contrast, is directed to networks that burden subscribers of the network with administrative data packets and other communications. Such communications burden the wireless devices by using up their communication bandwidth, storage capacity and processing resources, all of which are limited in wireless devices because of their size and disconnect from peripheral resources that might relieve such burdens. The convenience of hand held wireless devices are always balanced by this draw back. The invention is directed to resolving this burden on the wireless devices' resources by lightening up the data packet load when transmitting data packets to the wireless device, and, more importantly, screening data packets to prevent a large number of unnecessary data packets from being sent to the wireless devices.

So, for example, if the Szymansky system were configured under a Windows ™ protocol, it may have a problem of overburdening the wireless devices with administrative data packets, possibly network renaming routines that are often generated in a Windows ™ system, and are required to participate as a device on the Windows ™ system. According to Szymansky, there is no relief for such an overburdening, as there is no disclosure for filtering such packets out. There is some disclosure pertaining to security and passwords (Col. 4, Lines 1-39), but this level of security is a much higher level, less technically sophisticated than that claimed in the above claims, and only pertains to member access to information stored in the database. The invention, however, offers relief from the administrative communication burden. The invention screens data packets from transmission to the wireless device when they relate to administrative processes, such as renaming protocols that are required in Windows ™ based network systems.

All claims have been amended to include limitations directed to the prevention of transmission of administrative data packets to wireless devices, such as renaming protocols. Applicant intends this as a genuine attempt to move the prosecution of this application forward.

Furthermore, Applicants submit that all of the claims as amended are in condition for allowance, and, accordingly, requests their allowance. If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Attorney Docket No. CLAR-00200

The Commissioner is hereby authorized to charge any additional fees due or credit any overpayment to Deposit Account No. 50-2421.

Sincerely,

Dated: December 13, 2004

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